

BOTANY.—*New or little known Melastomataceae from Venezuela and Panama. II.*<sup>1</sup> H. PITTIER.***Miconia gatunensis*** Pittier, n. sp. (Sect. *Tamonea*)

Arbusecula ubique glaberrima, ramis superne plus minusve acute tetragonis inferne teretibus laevibusque; foliis modice petiolatis, subcoriaceis, supra intense subtus laete viridibus, petiolo tereti supra sulcato, laminis ovalibus subobovalibusve tripli- vel subquintuplinerviis, nervis prominentibus, basi rotundatis subacutisve apice abrupte anguste acuminatis, acumine brevi subacuto, marginibus integerrimis, venis transversalibus distantibus utrinque conspicuis, subtus prominulis, parce ramulosis; paniculis terminalibus, basi trichotomis, ad nodos inferiores 4-8-ramulosi, ramulis gracilibus, bis trichotomis; floribus pentameris brevissime pedicellatis, calyce tubuloso-campanulato, limbo obscure sub-5-dentato, persistente, petalis lineariblongis, albis, apice inaequaliter bilobulatis interdum reflexis; staminibus satis inaequalibus, filamentis gracilibus, antheris elongatis, apice attenuatis, uniporosis, basi bilobulatis, lobulis glandulis minutissimis pedicellatis tectis; ovario 3-loculari, glabro, usque ad medium libero, stylo elongato, apice subcapitellato.

Arbusecula 2-3- metralis. Ramuli parce ramulosi, virescentes. Petiolus 1-3 cm. longus; laminae 9-20 cm. longae, 5-7.5 cm. latae, acumine 1-1.5 cm. longo; nervulis transversalibus suberectis, 6-8 mm. distantibus. Paniculae circa 10 cm. longae, laxae pyramidatae. Pedicelli usque ad 0.5 mm. longi. Calyx 4.5-4.7 mm. longus. Petala 4.5-5 mm. longa, 2-2.2 mm. lata. Filamenta 2-6 mm. longa; antherae 5-6 mm. longae. Ovarium 1.5 mm. longum; stylus usque ad 12.5 mm. longus. Bacca ignota.

PANAMA: Humid forest along Río Indio de Gatún, Canal Zone, fl. February 17, 1911, *H. Pittier* 2786 (type).

This species seems to be nearly related to *Miconia subnodosa* Triana, but differs from it in its rather obtuse and terete branchlets, in the shape and dimensions of the leaves, and in the size of the flowers, in which the stamens are manifestly glandulous on the basal lobes.

***Miconia septuplinervis*** Pittier, n. sp. (Sect. *Eumiconia-Aplostachyae*)

Frutex ramulis junioribus cinereis, vix compressis, petiolis pedunculisque dense adpresse hirsutis; foliis breve petiolatis, insigniter 7-plinerviis, petiolo brevi, canaliculato, laminis elliptico-lanceolatis, basi acutatis, apice sensim acuminatis, margine subintegris, ciliatis, supra viridibus parce adpresse hirsutis, nervis supra subtusque dense hirsutis; spicis majusculis, terminalibus, regulariter interruptis; floribus 3-4-glomerulatis, sessilibus, glomerulis oppositis; calyce urceolato, 5-dentato, dense adpresse hirsuto; petalis 5, ovalibus, reflexis, glabris, apice rotundatis; staminibus 10, glabris, filamentis antherae aequantibus, connectivo vix producto. Ovarium 3-loculare; stylus glaber; stigma punctiforme papillosum.

Frutex 2-3 metralis, parce ramosus. Folia in eodem juro inaequalia; petiolus basi crassus, 6-10 mm. longus; lamina 12-27 cm. longa, 5-11 cm. lata, nervo mediano crassiore, lateralibus margini valde approximatis. Spicae erectae, validae, 12-18 cm. longae, pedunculo anguloso; glomeruli 1.5-2 cm. distantes. Calyx ecostatus, 3.5-4 mm. longus, apice 3.2 mm. latus.

<sup>1</sup> The first of these contributions was published in *This Journal* 13: 384-392. 1923.

Petala alba, enervia, 2.5 mm. longa, 1.5 mm. lata. Stamina filamenta gracilia, 2.5-3 mm. longa; antherae lineares e basi leviter attenuatae, 0.6 mm. crassae. Stylus circa 4 mm. longus.

PANAMA: Forests around San Felix, Chiriquí, fl. December 17, 1911, *Pittier* 5175 (type).

This striking species of the subsection *Eumiconia-Aplostachyae* is, so far as I know, the only one in the group with leaves genuinely multiplined. In several of the known species, the leaves are said to be trinerved, or almost triplinerved; in a few others they are triplinerved; but in our specimens they are distinctly septuplinerved, the three pairs of opposite nerves showing in light gray on the upper face of the leaf, and being made more conspicuous on the lower face by a neat fringe of gray hairs. Furthermore, these leaves are larger than in any other species of the group, and the spikes are surpassed in length only in *M. longipedunculata* and *M. longispicata*. The flowers, forming regularly distant clusters in which one of them opens at a time, seem to differ also by their superior dimensions.

With the exception of *M. triplinervis* R. & P., reported once from Mexico, *M. septuplinervis* seems to be only species of the *Aplostachyae* found north of the Isthmus of Panama.

*Miconia caudiculata* Pittier, n. sp. (Sect. *Glossocentrum*)

Arbuscula ramulis acute tetragonis, superne valde compressis, junioribus petiolis pedunculisque dense squamuloso-furfurescentibus; foliis oppositis, membranaceis, breviter petiolatis, nervulo marginali praetermisso 3-plinerviis, petiolo subtus striato supra late canaliculato, laminis oblongo-lanceolatis basi sensim attenuatis et in petiolo decurrentibus, apice angustato in caudiculam tenuissimam squamosulam abrupte contracto, marginibus integris plusminusve revolutis, supra glaberrimis in siccis nigrescentibus, subtus tenuiter stellato-tomentellis pallide viridibus; nervis supra immersis, subtus eleganter prominentibus; paniculis terminalibus, ramosis, folia subaequantibus, ramulis decussatis, subsimplicibus, multifloris; floribus 5-meris, subsessilibus, basi bracteolis minimis subpersistentibus suffultis; calyce globoso subcampanulato, apice vix sinuato, extus squamulis stellato-ciliatis cinereis utrinque tecto; petalis albis, obovatis, oblique retusis, reflexis, glabris; staminibus 10, inaequalibus, saepius reflexis, filamentis glabris, compressis, antheris truncatis late uniporosis connectivo infra loculos modice producto, breviter calcarato, cum filamento geniculato; ovario 3-loculari superne glabro; bacca globoso-depressa, caeruleo-nigrescente, edule.

Arbuscula ad 4 m. alta. Petiolus 1-1.5 cm. longus; laminae 12-20 cm. longae, 3.5-6 cm. latae; caudicula apicalis 4-9 mm. longa. Racemi 15-22 cm. longi, circa 6 cm. diam. Pedicelli 0.1-0.2 mm. longi. Calyx 2.6-2.8 mm. longus, 1.8-2 mm. diam. Petala 2.8-3 mm. longa, 1.7-2.1 mm. lata. Antherae cum connectivo 0.5 mm. producto circa 3 mm. longae. Stylus 6-7 mm. longus. Bacca 6-7 mm. diam., 5 mm. longa.

VENEZUELA: Zulia: Shady banks of the Sta. Ana and Lora rivers, sometimes in close formation, fl. and fr. December 1922, *Pittier* 10955, 10980 (last number the type).

This shrub, which is characteristic of certain shaded strips along the banks of the rivers in the Perijá district of Zulia, belongs to section *Glos-*

*socentrum*, represented so far in Venezuela only by *Miconia minutiflora* DC. It is likely, however, that besides this latter species and the newly described one, we have also in our territory *M. trichotoma* and *M. longifolia* DC., reported from the island of Trinidad. But *M. minutiflora* and *M. longifolia* belong to the group of species with pentamerous flowers and glabrous leaves, and *M. trichotoma* has tetramerous flowers, so that our *M. caudiculata* is the only Venezuelan representative of the species the leaves of which show a stellate indument on their lower face, species which so far have been known to occur only in Central and South Brazil. The new species should probably be placed close to *M. willdenowii* (Klotzsch) Cogn., from which it is easily distinguished by several characters, without mentioning the striking apical appendage of its leaves, which does not seem to have been noticed in any other species of the genus.

***Miconia cuspidatissima* Pittier, n. sp. (Sect. *Cremanium*)**

Arbuscula ramis teretibus, flexuosis, glabrescentibus, ramulis novellis, petiolis, paniculis, calycibusque pilis plumoso-penicillatis stellulatisve fulvescentibus dense obtectis; foliis modice petiolatis, chartaceis, subconcoloribus; petiolo tereti; laminis ovato-oblongis, 3- vel sub-5-nerviis, margine integerrimis, basi late rotundatis vel interdum leviter emarginatis, apice longe angustissime cuspidatis, supra fere glabris, nervis impressis, subtus praecipue ad nervos venasque prominentes pilis plumoso-penicillatis tectis; paniculis laxis, basi dichotomis; ramulis floribusque trichotomis; pedicellis longis, gracilibus, basi bracteolis subulatis caducis suffultis; calyce late rotundo-campanulato, basi leviter costato, apice duplo 5-dentato, dentibus interioribus scariosis, late acutis, inconspicuis, exterioribus validioribus, conicis; petalis 5, suborbiculatis, vix unguiculatis, apice leviter emarginatis, in sicco luteis; staminibus 10, aequalibus, filamentis glabris, apicem versus attenuatis, antheris filamentis duplo brevioribus, biporosis, obcuneatis, connectivo crasso, prominenti, basi bigibboso; ovario calyci adnato, triloculari, stylo glabro apice subclavato vel subcapitellato.

Arbuscula 3-4 m. alta. Petioli 1.5-2.5 cm. longi; laminae (cum cuspidate) 2-2.5 cm. longae 10-15 cm. longae, 3.5-6 cm. latae. Panicula circa 10 cm. longa, pedunculo 2.4 cm. suffulta. Pedicelli 2.5 mm. longi. Bracteolae 1.5 mm. longae. Calyx 3 mm. longus latusque, dentibus exterioribus usque ad 0.5 mm. longis. Petala 2.5 mm. longa, 2.3 mm. lata. Stamina glaberrima, filamentis 3.3 mm., antheris 1.6-1.8 mm. longis. Ovarium 1.5 mm. altus; stylus 6.5 mm. longus.

PANAMA: Humid forest on the precipitous slopes between Alto de las Palmas and top of Cerro de la Horqueta, 2100-2268 m., Chiriquí, fl. March 18, 1911, Pittier 3224 (type).

This species should be placed either near *Miconia elata* DC., if the leaves are considered as 5-nerved, or if these are 3-nerved, near *M. rigens* Naud., the first a Jamaican, the latter a Colombian plant. The relation, however, seems to be remote, our plant being characterized by the long drip-point of its leaves, by the fulvescent indument formed of long plumose-penicillate hairs on the branchlets, leaves, and rachis of the inflorescence and of stellate hairs on the pedicels and calyx, by the double calyx teeth, etc. This latter character is unusual in Sect. *Cremanium*.

**Miconia jahnii** Pittier, n. sp. (Sect. *Cremanium*)

Arbuscula ramis tetragonis apice valde compressis ad nodos incrassatis, petiolis pedunculis ramulisque inflorescentiarum dense brunneo-furfurescentibus; foliis approximatis imis longe petiolatis; petiolis angulosis compressis; laminis ovato-lanceolatis basi subrotundatis, leviter attenuatis, apice sensim breviterque acuminatis, margine remote calloso-denticulatis, nervis lateralibus margini approximatis, supra glabris glabrescentibusve, in sicco nigrescentibus, nervis impressis, subtus fulvescente stellato-velutinis, nervis nervulisque prominentibus; inflorescentiis terminalibus paniculatis ovoideo-pyramidatis; floribus sessilibus subsessilibusque, in verticillis densis, approximatis, congestis; calyce urceolato, densiuscule furfuraceo, 5-dentato, dentibus brevibus acutis; petalis late obovatis, albis, patulis, margine irregulariter sinuatis; staminibus 10, glabris, antheris filamentis dimidio brevioribus; stylo glabro, apice subclavato.

Arbuscula 2-3 m. alta. Internodii ramulorum foliatorum circa 1.5 cm. longi, defoliatorum 6-8 cm. Petioli 1-2 cm. longi; laminae 7-10 cm. longae, 2.5-4 cm. latae. Paniculae 6-10 cm. longae. Calyx 2-2.5 mm. longus, 2.4 mm. latus, dentibus circa 0.6 mm. longis. Petala 2-2.2 mm. longa, 1.7-2 mm. lata. Staminorum filamenta 2-2.5 mm. longa; antherae cuneatae, truncatae, biporosae, 1.7-1.9 mm. longae. Stylus 3-3.5 mm. longus.

VENEZUELA: Páramo Quirorá, 3000 m., Andes of Mérida, fl. January 24, 1922, *Jahn* 876 (type).

This species is nearly related to *Miconia granulosa* Naud., reported from the Eastern and Central Andes of Colombia and from Bolivia. It differs mainly in its smaller leaves, shorter panicles, and larger flowers. It grows on the margin of the high andine páramos.

**Conostegia excelsa** Pittier, n. sp.

Arbor pro genere excelsa, trunco erecto, coma elongata, sparsa, ramulis haud compressis, petiolis, laminis subtus atque inflorescentiis plus minusve dense furfuraceis; foliis longe petiolatis, 5-nerviis, coriaceis, integerrimis, petiolo evanescente furfuraceo, anguloso, laminis ovatis subobovatisve, basi obtuse rotundatis, apice late obtusis supra nervis interdum furfuraceis exceptis glaberrimis, nervis venisque transversalibus impressis, subtus nervis dorso interdum denudatis exceptis dense canescente furfuraceis, nervis venis venulisque prominentibus; paniculis brevibus, latis; floribus graciliter pedicellatis invis; pedicellis leviter furfuraceis; bacca 5-loculari, basi stellato-furfurascens excepta glaberrima, semiglobosa; seminibus clavatis, apice truncatis, laevibus.

Arbor 20-25 m. alta. Petioli 2.5-6 cm. longi; laminae 7.5-17 cm. longae, 6-10.5 cm. latae. Pedicelli 6-8 mm. longi; bacca 0.5 cm. longa, apice 8 mm. diam. Semina 1-1.2 mm. longa, apice 0.4 mm. lata.

PANAMA: Humid forest around Los Siguan Camp, southern slope of Cerro de la Horqueta, at about 1700 m., Chiriquí, fr. March 18, 1911, *Pittier* 3196 (type).

In the absence of the flowers, it is difficult to establish the relationship of this species. It may be allied to *C. macracantha* Triana, but differs in the large size of the tree, in the 5-nerved leaves and in the apparently 5-merous flowers.

**Topobea micrantha** Pittier, n. sp.

Arbuscula marginis foliorum ciliatis exceptis glaberrima, ramis gracilibus flexuosisque teretibus, ramulis apice tetragonis; foliis parvis, petiolatis, 3-5-nerviis in eodem jugo inaequalibus; petiolo longo, gracili, canaliculato; laminis late ovalibus suborbiculatisve basi acutissimis, apice abrupte breve acuminatis, margine leviter revolutis remote denticulatis ciliatisque, supra laete viridibus nervo medio prominulo, lateralibus subimpressis, subtus glaucescentibus nervis prominulis, supra subtusque densiuscule rufo-punctulatis; inflorescentiis axillaribus, brevibus, pedunculatis, trichotomis, copiose bracteolatis; pedunculo brevi, basi ebracteato; bracteolis oppositis, decussatis, spathulato-oblongis, basi longe attenuatis, apice obtusis, margine crenato-denticulatis, interdum ciliatis, trinerviis, plus minusve punctulatis, quam flores longioribus; floribus parvis, 5-meris, pedicellatis; pedicellis brevibus; calyce tubuloso-campanulato, leviter 10-costato, limbo 5-lobulato, lobulis late rotundatis, scariosis, extus dentibus validis subaequilongis productis; petalis 5, orbiculatis, albo-roseis, vix unguiculatis, apice levissime emarginatis; staminibus 10; ovario 4-loculari; bacca sicca, moriformi, calycis lobulis persistentibus coronata; seminibus paucis, obovato-cuneatis, punctulatis.

Arbuscula 1-3 m. alta. Petiolus 0.8-1.8 cm. longus; laminae 3-5 cm. longae, 1.5-2.8 cm. latae. Inflorescentiae 1-1.5 cm. longae; pedunculus 0.4-0.5 cm. longus. Pedicelli 0.5-1.5 mm. longi. Bracteolae 5-7 mm. longae, 1.5-1.8 mm. latae. Calyx 2.5 mm. longus (tubus 1.7 mm., lobulis 0.8 mm.), apice tubi 1.8 mm. latus. Petala 2.5 mm. longa lataque; et caeterae ignotae.

PANAMA: Humid forests on the precipitous western slope of Cerro de la Horqueta, 2100-2268 m., Chiriquí, fl. and fr. March 18, 1911, *Pittier* 3276 (type).

It is not without hesitation that this remarkable plant is placed in genus *Topobea*. It agrees with this, it is true, in the general characters of the flower, fruit, and seeds, but the flowers and leaves are very small as compared with those of the other species of the genus, and the imperfect stamens at my disposal also seem to be different in their structure. In the bud, however, they are disposed in the same way as in *Blakea* and *Topobea*, the anthers being bent down inward so that their tips occupy the hollow at the apex of the ovary, around the style. The bracts, longer than the flowers, are not imbricate, but somewhat distant and decussate. Other striking characters are the ciliate leaves (noted also in *T. ciliata* from Ecuador), and the numerous brown dots on the leaves, which, on closer observation, are found to be formed by dense groups of diminute squamose hairs. Identical dots are seen on the leaves of *T. punctulata* and *T. latifolia*, from Colombia, as well as on those of *T. superba* and *T. regeliana*, both of which grow within the limits of Panama, but are not at all closely related to our plant.